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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DAGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
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2683

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/684,949	Applicant(s) D'SOUZA, WINAND	
	Examiner Stephen M. D'Agosta	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-25 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 14, 15, 18 and 20 is/are rejected.
- 7) ☒ Claim(s) 4-5, 8-12, 16-17 and 21-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

1. The examiner has painstakingly reviewed Hawker and believes it reads on the rejected independent claims for several reasons:

a. First and foremost, Hawker and the applicant both disclose the need for a handsfree/handset mode phone which uses only ONE transducer. This appears to be the prime motivation for Hawker and the applicant.

b. Both Hawker and the applicant use one transducer and two exit points (eg. one for handsfree/speaker mode and one for earpiece mode).

c. Hawker, figure 3, shows two chambers, #32 and #30 whereby acoustic energy generated from the single transducer #20 exits at ports #48 for handsfree mode and/or ports #40 for earpiece mode. The examiner notes that "baffles/vents" #42 are opened or closed based on the user selecting which mode to operate in (again, either handsfree or earpiece mode).

d. Hawker states that the user closes/covers the vents when operating in handsfree mode and opens/uncovers the vents when operating in earpiece mode (see C2, L8-25). The examiner notes that when the vent is closed, all the acoustical "energy/power" is directed to ports #48 for loudspeaker/handsfree operation but when the vent is opened, less than all the power is directed to the loudspeaker ports since some escapes to ports #40 for earpiece operation. Therefore, the examiner interprets that Hawker's teachings read on the applicant's claim(s) as follows:

i. Claim 1:

".....an acoustical audio path which conducts the acoustical signal as sound waves between the transducer and the outlet for the egress of an acoustic signal when in the loudspeaker mode also being less attenuated than an acoustical audio path which conducts an acoustical signal as sound waves between the transducer and the outlet for the egress of the acoustical signal when in the earpiece mode..."

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- For handsfree/loudspeaker mode, Hawker's acoustical path is "less attenuated" and would be as shown in figure 3 with the vents #42 closed. Therefore all audio energy from the transducer #20 would flow to the handsfree/loudspeaker ports #48
- For earpiece mode, Hawker's acoustical path would be as shown in figure 3 with the vents #42 opened, therefore some acoustic energy from the transducer #20 would flow to the earpiece ports #40, thereby causing an attenuation of the audio energy flowing to the handsfree port when the user is engaged in handset operations).

To reiterate this very important point, the claim language merely states that there are two modes (loudspeaker and earpiece mode) and that more acoustic energy flows to the speaker when in loudspeaker mode (eg. is less attenuated). Conversely, when in earpiece mode, the acoustic energy is attenuated more since some energy must flow to the earpiece. Hawker has a vent which opens a hole between the speaker and earpiece thus causing attenuation of the acoustic energy when selecting earpiece mode. Please note the claim does not state how attenuation can occur.

e. The examiner notes that since there is no claim language limiting if an amplifier can be used to increase or decrease the audio power, this is not a valid argument and is deemed superfluous. The applicant is invited to amend the independent claim(s) to reflect that an amplifier can/cannot be used should they wish to repeat this argument (please note that the opening/closing of the vents #42 allow for the acoustic path to be attenuated/not attenuated, hence the amplification operation is really not the focus).

f. As a last point, the examiner believes the applicant's claims read too closely on Hawker and are therefore not patentable. So, if the applicant believes their claims are differentiated from Hawker, the board of appeals will be where an outcome will be decided.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-7, 14-15, 18 and 20-21 rejected under 35 U.S.C. 102(b) as being anticipated by Hawker et al. WO-97/47117 (hereafter Hawker).

As per **claims 1, 7, 18 and 20**, Hawker teaches a portable (telecommunications) device (figure 1) comprising

A housing (figure 1, #12) having a first surface with an outlet for the egress of an acoustic signal when in a loudspeaker mode (figure 2, #46) and a second surface with an outlet for the egress of an acoustic signal when in the earpiece mode (figure 1, #20)

An electro-acoustic transducer located within the housing for converting an electrical signal input to the transducer into an acoustic signal, the transducer being operable to output acoustic signals when in the loudspeaker mode or the earpiece mode, the audio path between the transducer and the outlet for the egress of an acoustic signal when in the loudspeaker mode being less attenuated than the audio path between the transducer and the outlet for the egress of an acoustic signal when in the earpiece mode (page 6, L30-36 and page 7, L4-30).

-- Hawker, figure 3, shows two chambers, #32 and #30 whereby acoustics generated from the single transducer #20 exits at ports #48 for handsfree mode and/or ports #40 for earpiece mode. The examiner notes that "baffles/vents" #42 are opened or closed based on the user selecting which mode to operate in (again, either handsfree or earpiece mode).

-- Hawker states that the user closes/covers the vents when operating in handsfree mode and opens/uncovers the vents when operating in earpiece mode (see C2, L8-25). The examiner notes that when the vent is closed, all the acoustical

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“energy/power” is directed to ports #48 for loudspeaker/handsfree operation but when the vent is opened, less than all the power is directed to the loudspeaker ports since some escapes to ports #40 for earpiece operation. Therefore, the examiner interprets that Hawker’s teachings read on the applicant’s claim(s) as follows:

- For handsfree/loudspeaker mode, Hawker’s acoustical path is “less attenuated” and would be as shown in figure 3 with the vents #42 closed. Therefore all audio energy from the transducer #20 would flow to the handsfree/loudspeaker ports #48
- For earpiece mode, Hawker’s acoustical path would be as shown in figure 3 with the vents #42 opened, therefore some acoustic energy from the transducer #20 would flow to the earpiece ports #40, thereby causing an attenuation of the audio energy flowing to the handsfree port when the user is engaged in handset operations).

With further regard to claim 20, Hawker teaches “and the outlet for the egress of the acoustical signal when in the earpiece mode, wherein the attenuation is caused by a physical path limitation of the acoustical audio path between the transducer and the outlet for the egress of the acoustical signal when in the earpiece mode” (see discussion of opening/closing vents above, which are physical path limiters).

As per **claim 2**, Hawker teaches claim 1 and an attenuator is provided between the transducer and the outlet for the egress of the acoustic signal when in earpiece mode (see figure 3, vents #42 which allow acoustical signal to pass to earpiece outlets #40).

As per **claim 3**, Hawker teaches claim 1 further comprising an amplifier for amplifying the electrical signal prior to inputting to the transducer and a gain control for controlling the gain of the amplifier, the gain control being operable to increase the gain of the amplifier when the device is to operate in a loudspeaker mode relative to the gain of the amplifier when the gain is in an earpiece mode (page 6, L30-36 and page 7, L4-30).

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As per **claims 6 and 14-15**, Hawker teaches claim 1/2/3 wherein the device is a portable communication device (eg. cell phone, figure 1).

Allowable Subject Matter

- a. **Claim 19** allowed. This claim states detecting the state of the two housings and producing a certain signal based on their positions (which is not taught by Hawker).
- b. **Claims 4-5, 8-12 and 16-17** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 571-272-7862. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stephen D'Agosta
Primary Examiner
12-6-2005

